Currituck Sound Study
Sponsor's Advisory Committee Meeting
12 March 2003

List of Attendees

NAME	ORGANIZATION	E-MAIL ADDRESS	PHONE
1. Jerad Bales	US Geological Survey	jdbales@usgs.gov	(919)571-4048
2. Yates Barber	Paquotank River Basin Regional Council	None	(252) 338-3557
3. Tony Caselton	HRPDC	acaselton@hrpdc.org	(757) 420-8300
4. Michele Cleland	US Army Corps of Engineers, Norfolk District	michele.h.cleland@usace.army.mil	(757)-441-7766
5. Jeff Deblieu	Nature Conservancy	jdeblieu@tnc.org	(252) 441-2525
6. Kevin Dockendorf	NCWRC, Inland Fisheries	dockendorfkj@earthlink.net	(252) 335-9898
7. Earl Edris	USACE, ERDC	earl.v.edris@erdic.usace.army.mil	(601) 634-3328
8. Joan Giordano	APNEP	joan.giordano@ncmail,net	(252) 446-6481
9. Lynn Henry	NC Division of Marine Fisheries	lynn.henry@ncmail.net	(256)-796-1322
10. Lisa Hetherman	Project Manager, COE-Wilmington	lisa.l.hetherman@usace.army.mil	(910)-251-4831
11. Noah Hill	VADCR	nhill@dcr.state.va.us	(757) 925 2468
12. Jennifer Howell	VA Department of Environmental Quality	jshowell@deq.state.va.us	(757)-518-2000
13. Richard Lewis	USACE, Wilmington	richard.h.lewis@usace.army.mil	(910) 251-4755
14. John Morris	Director, Division of Water Resources	john.morris@ncmail.net	(919)-733-4064
15. Jim Mulligan	NC Division of Water Quality	jim.mulligan@ncmail.net	(252)-946-6481
16. Bob Noffsinger	US Fish and Wildlife Service	bob_noffsinger@fws.gov	(252)-473-6983
17. Tom Oakes	Fisherman	toakes_ec@yahoo.com	(252)-453-2545
18. Doug Piatkowski	USACE, Wilmington	Douglas.piatkowski@usace.army.mil	(910) 251-4908
19. Ted Sampson	NC Division of Coastal Management	ted.sampson@ncmail.net	(252)-264-3901
20. Dan Scanlon	County Manager, Currituck County	dscanlon@co.currituck.nc.us	(252)-232-2075
21. John Sutherland	NC Division of Water Resources	john.sutherland@ncmail.net	(910) 715-5446
22. Greg Steele	US Army Corps of Engineers, Norfolk District	gregory.c.steele@usace.army.mil	(757)-441-7589
23. Chuck Wilson	USACE, Wilmington	charles.r.wilson@usace.army.mil	(910) 251-4746
24. Mike Wicker	US Fish and Wildlife Service	mike.wicker@fws.gov	(919) 856-4520

Meeting Place and Time

The meeting took place in Elizabeth City at the College of the Albemarle in Building E, room E-121-A, from 9 AM to 1 PM on 12 March 2003.

Welcome and Introduction

John Morris – General Welcome. Mr. Morris requested that everyone introduce themselves.

Status of Study and Next Steps

John Morris stated that after review of the Draft Project Management Plan (PMP) and making necessary changes, we will be ready for the Feasibility Cost Sharing Agreement (FCSA) to be signed.

Lisa Hetherman stated that once the FCSA is signed, we will be ready to begin the feasibiltity study. She explained the three-phase study approach. In phase 1 we will determine what data is available, what data is needed, and what studies should be performed to acquire additional data. In Phase 2 the studies will be performed and problems, needs, and opportunities will be identified. During Phase 3 alternatives will be developed and recommended actions will be identified. Lisa then discussed the general timeline for the study and mentioned that each feasibility phase may require 12 to 18 months.

Establish Goals for Meeting

John Morris suggested that the group discuss each topic area listed in the Draft PMP in the order they appear in the PMP. Discussion on available data and studies and who could do the work best was encouraged. John mentioned there was a sign up sheet in the front of the room for each topic area for meeting participants to sign up for working groups. John reminded the group that at the last Sponsor's Advisory Committee Meeting a list of available data and research was created. He also directed discussion to for each topic area to start with the text in the PMP for phase 1, then move to phase 2, and finish by discussing phase 3.

Richard Lewis, the USACE Wilmington District Lead Planner for the Currituck Sound Study, facilitated the topic area discussions and Lisa Hetherman, the USACE Wilmington District Project Manager for the Currituck Sound Study, captured these discussions on large sheets of butcher paper. Main points from the discussions for each of the topic areas of the PMP are identified below.

Fisheries and Shellfish

- USFWS has data and the SYNCOX Report contains information that will be helpful for the fisheries subgroup. There was discussion on overall study goals and some felt SAV's are the key issue for the study.

- No historical population dynamics/exploitation pattern data exists for either fresh or saltwater. The Department of Marine Fisheries has trawl and electroshock data.

- The statement in the PMP for phase 1 on page 2, on the importance of anadromous fish is false. The following statement should be removed from the PMP: "Anadromous fish are the focus of considerable concern due to their high economic value, ecological importance, and steady and significant population declines.".

- PMP should not just state that since the 1980's the sound's fish and wildlife habitat has declined, but define the decline and list species that have flourished as well as those that have declined. Currently the sound is a saltwater estuary throughout. Freshwater species, such as bass have declined, but estuarine species such as blue crabs, have increased. Waterfowl has decreased ten fold.

- For phase 2 of the PMP, a recreational creel survey is not available. However, commercial landing data is available. There is the Marine Recreation Survey which is a statistical survey by the NMFS and the DMF.

- Agreed that data should be collected via interviews and reviewing daily fishing logs.

- Agreed that the movement of fish should be evaluated prior to considering structures and should be added to the PMP. Knowing the movement of fish in and out of the sound will be important for permits.

- It was mentioned that SAV type preferences are not known, but the goal should be to get system back to historical conditions.

- Nitrogen levels and turgidity are driving changes in the Sound as well as salinity.

- It was suggested that the relationship between turbidity and Eurasian Water Milfoil (milfoil) should be addressed. The water was clear in 1975. However, after 1975 it became impossible to see the bottom of the Sound due to milfoil.

- Consider the 1962 Ash Wednesday Storm affect and affects of other storms. Turbidity problems date back prior to milfoil.

- Consider the relationship of the size of bass and the abundance of milfoil. Fishermen were catching bass that were 12 + pounds during the explosion of milfoil.

- Concern that there are no known examples of where eutrophocation was reversed or endemics came back.

- Consider the direct relationship between the abundance of organisms in SAV's and fish populations.

- The nutrient loading in sound in unknown. Data on nutrient loading in the Sound is required.

- It is believed that non-point sources affect the sound the most.

- Types of shellfish should be specified in PMP.

Salinity/Hydrographic Modeling and Sediment Analysis

- Consider land use changes as scenarios in phase 2 modeling.

- Consider benthic feeding in water column.

- Consider report on opening canal.

- Need a regional core scale model for salinity changes in phase 1. In phase 2 this model will be refined and questions will be answered.

- Need to work with the Norfolk District and learn from the Lynhaven Study. The IMS model was used in this study.

- Include land use analysis to capture nutrient loading in phase 2 modeling.

- Consider water quality aspect and nutrient levels. Evaluate advantages of scenarios.

- Agreed to include water quality with the salinity/hydrographic modeling and sediment analysis section of the PMP.

- Include trend analysis/consultation with water quality experts in phase 1.

- More time should be spent on other factors such as: pH and nutrients.

- Agreed that salinity affects on freshwater wetlands is important.

- Data collection on pesticides, bacteria, and fecal coliform is needed. Fecal coliform is not a current problem.

- Consider the affect of acid rain and air pollutants on the Sound.

- Consider the study by the State of NC (3-4 years ago). Salinity and flow data was collected for 12 months. It was stated that this would be enough data for phase 1 modeling and the modeling should take 6 months.

- Consider water withdrawals from Sound.

- Determine magnitude of flows through Canal Number 1, Canal Number 2, Northwest River, and Canal at AIWW.

- It was stated that salt water was pumped into Back Bay in 1965. The pumping ended in 1985. Back Bay was wiped out and has come back now.

- Consider what is occurring now in the narrows and what would happen in Back Bay if the water is restricted at the narrows by a bio. technical barrier.

- It was mentioned that freshwater is not coming into the North River as it use to and Canal Number 2 allows salt water to enter Sound.

- Consider the two APNEP reports on the Currituck Sound area.

- Check the Albemarle Pamlico Estuarine Study for Currituck data.

- Include impacts of sea level rise as a component of modeling.

- EPA Climate Change Office has graphic information on climate changes and what sea level rise will do in specific locations. The information is categorized by CAMA counties.

- Establish salinity tolerances for species of concern.

- Consider the relationship of surface and subsurface.

- DEQ trend data is available (pesticides, metals, nutrients, salinity) from the 1970's to the present. There are data stations in the New River (7 stations), North Landing River (7 stations), and Back Bay (12 stations).

Water Quality

- Combine with hydrographic modeling
- Relate to climatological events.
- Use ferries to monitor water quality. Dr. Ramas would be a good point of contact. Currently 6 parameters of data is collected data is transmitted by satellite.
- Need both loading coming in and out of sound AND data such as that collected on the ferry for modeling – calibrate from loadings. Working group will identify these data needs in phase 1 and then funding will be approved
- Consider the following parameters: fecal coliform, pesticides, dissolved oxygen, nitrates/phosphates, turbidity, sediment transport, water clarity, acid rain, and sulfates (sulfate link established for impacts on freshwater grasses by Hackney).
- Consider Office of Water Resources Study.
- Wind causes changes in water quality.

Wetlands/Maritime Forests/Submerged Aquatic Vegetation

- It was stated that SAV's are the major concern.
- Use SAV information from Chesapeake Study.
- SAV data available from 1991 to present. USFWS targeting this area for SAV monitoring ($25 K). Aerial photos will be converted to a database. It will cost approximately $50 –75 K for the first effort. There is a possibility of the State matching funds. Agreed that this SAV work is already captured in the PMP.
- Agreed that wetland areas including tributaries should be mapped using aerial photography.
- Agreed that historic (pre Eurasian Water Milfoil) and existing location of SAV's should be mapped. Some grasses currently present include: Wild Celery, Sago Pond Weed, Bushy Pond Weed, Widgeon Grass, and possibly Cara Hytella.
- It was stated that we should help strengthen agencies past research and work from existing efforts with studies such as the USFWS SAV monitoring.
- Agreed there is a need to study wetlands and possibly reestablish wetlands as a filter.
- Consider the National Wetlands Inventory trend analysis report which uses GIS to identify wetlands lost since the 1980's.
- Consider crop wash affects on SAV's.
- Consider recreational impacts to SAV's.

- Learn from the efforts at Wilson Bay in Jacksonville, NC. Plans for this ecosystem restoration study include planting SAV's.

- Establish SAV monitoring plan.

Waterfowl/Colonial Nesting Water Birds and Threatened and Endangered Species

- Herons and egrets are the species of primary interest not colonial nesting water birds. The PMP should identify the waterfowl species of concern.

- USFWS Refuge data and mid winter inventory on web.

- Include citizens, guides, and sportsmen in working group – gather historical data.

- Consider the shift in species for food source. If there are a lot of clams present, there will also be a lot of divers.

General Comments

- The importance of community involvement was discussed and it was agreed that opportunities should be built into the study process. It was suggested that public involvement be in the budget.

- John Morris will contact Noah Hill, Mike, Joan Giaordano, and Dan Scanlon about the best ways to include the public.

- The city and county will have a link on their websites to the Currituck Study website.

- The value of school involvement was discussed. We can learn from the "Grasses in the Classes" program that was implemented for the Chesapeake Bay Study.

- There is an opportunity to increase the awareness of the Currituck Sound Study on July 23 –24 when the Coastal Resource Commission meets in the Currituck area.

- It was suggested that the next Sponsor's Advisory Committee Meeting be held in Currituck County

- All pages should be numbered in the PMP. Currently after page 8 the numbering system changes to "phase 1 page1, phase 2 page2, etc.".

Next Steps

John Morris stated the next step will be making changes to the PMP and signing the FCSA. John will contact the members of the sub-group on public involvement and determine the best plan for involvement. After the FCSA is signed, the working groups for each study topic will meet to discuss what data exists and what data they recommend be collected.